# Polarized Proton Run Preparation

January 7, 2008

What we do know:

# There will be a short ($\approx$ 4 weeks) Polarized Proton Run, starting in $\approx$ 3 weeks

...and what we don't:

energy, polarization orientation,...

# What they want (in a nutshell)

- STAR wants 200 GeV "unpolarized" (= vertical pol.) proton data for comparison with d-Au

- PHENIX leans towards 500 GeV, longitudinally polarized

This will (hopefully!) be decided during the Machine/Detector Meeting on Tuesday

# Things to do (independent of energy)

- Develop MAD lattices for different $\beta^*$ (Steve T.)
- Revert Q7 polarity (one day)
- Hi-pot snakes and rotators (mostly done, 4 snake ps remaining)
- Low-current test snakes and rotators (4/8 snake and 2/16 rotator ps remaining)
- High-current test snakes and rotators (2 days, after maintenance day)

- Work on polarized source
- Start the LINAC
- Pre-test AGS pp quads and bumps
- 200 MeV and AGS polarimeter work
- Start AGS setup (cold snake ready $\approx$ Jan. 18)
- Get the JET ready (fix chamber 5 pump, one day)
- Move ZDCs to pp position

# Things to do (energy-specific)

- Develop a ramp (Steve T./Nikolay)
- Test that ramp (Don/Wing, hopefully during Jan. 16 Maintenance Day)

That's a lot of power supply work!

# 200 GeV Configuration and Projections

- Setup time: 2 weeks (new working point in blue ring)
- Luminosity: $5\,\mathrm{pb}^{-1}$/week (70 percent of weekly Run-6 luminosity)
- Polarization (vertical?): 60 percent

# 500 GeV Configuration and Projections

- Setup time: 3 weeks (same configuration as in Run-6, maybe tighter squeeze, though no 9 MHz cavity)

- Luminosity: 12.5 $\mathrm{pb}^{-1}$/week (70 percent of weekly Run-6 luminosity, scaled by energy)

- Polarization (long.): 45 percent (as achieved during Run-6 250 GeV tests)

# RHIC shifts

8 shift leaders:

Angelika
Jorg
Mei
Natalia (with help from Wolfram, if needed)
Todd
Vadim
Waldo
Yun

Same scheme as d-Au, Natalia will replace Christoph